Dispatches from the Babel: What the Old Testament makes of scaffolding

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וַיֹּאמְרוּ הָבָה נִבְנֶה-לָּנוּ עִיר וּמִגְדָּל וְרֹאשׁוֹ בַשָּׁמַיִם וְנַעֲשֶׂה-לָּנוּ שֵׁם

*And they said, "Come, let us build us a city, and a tower, with
its top in heaven, and let us make us a name."* (Gen. 11:4)

(1) Aim

    a. Not to present new research on discontinuous agreement (*person-...-number*) but:

    b. to revisit my old research and highlight what I believe the explicanda to be (Harbour 2007, 2008, 2016);

    c. in particular, what the language of the Old Testament tells us about the clausal and subclausal scaffolding (functional structure of phi, the extended verb projection, the complementiser domain).

(2) Basics

    a. Afroasiatic languages have prefixal and suffixal conjugations:

ʔe- lmad	lāmd- ū
1SG-learn.IMPF	learn.PF-3PL
'I will learn' (אֶלְמַד)	'they learned' (לָמְדוּ)

    b. Pick the right person-number in each conjugation and these are bimorphemic:

ti-lmd- ū	lmad- t- em
2-learn.IMPF-PL	learn.PF-2-MPL
'you will learn' (תִּלְמְדוּ)	'you learned' (לְמַדְתֶּם)

    c. Ordering generalisation: when bimorphemic in either conjugation, person precedes number.

    d. Straddling generalisation: when bimorphemic in the prefixal conjugation, person is prefixal, number suffixal.

(3) Desiderata 1–2. Given that similar ordering and straddling holds in other families and in other regions, we do not want an account that locates precedence, prefixality, and suffixality wholly in the affixes. (Contra Noyer 1992, Halle 1997.)

(4) My account: Ordering generalisation

    a. Person and number are syntactically separate.

    b. Initially (2007–2008), I had person above number.

    c. By 2009, I had adopted Mirror Theory (Brody 2000, Brody and Szabolcsi 2003) to deal with word order facts in Kiowa (Adger et al., 2009).

    d. Revisiting person and number in 2016, I therefore inverted the syntax and had number above person—which, it turned out, I needed for independent reasons (to get the semantics of person and number to work out).

    e. Upshot: syntax has [Number [Person]], which linearizes as *person→number*.

(5) My account: Straddling generalisation

    a. If [Number [Person]]→*verb*, that is, if the linearization procedure anchors phi at the left edge of the exponed verb, then there are two scenarios:

    b. Monomorphemic: no issues: *phi→verb*.

    c. Bimorphemic: issues.

        (i) Start at bottom of the phi-structure, *person→verb*.

      (ii)   But you've still got to expone Number, which needs to follow *person*. How to do this without disrupting the linear string built so far?

      (iii)   By putting *number* after the string containing *person* rather than after *person* itself. Hence,
$$person \rightarrow verb \rightarrow number.$$

      (iv)   Background assumption: to disrupt previous established strings, you need special operations, which is what infixation and metathesis involve. These are not accessed in routine linearization.

(6)   Desideratum 3 – base position generalisation

    a.   Straddling arises in response to linearization challenges when phi is *prefixed* to the verb. So, when a straddling conjugation retreats to just one position, it retracts to the prefixal position.

    b.   More generally, languages may have conjugations comprising both prefixal *x-verb* with straddled *y-verb-z*, but not ones comprising suffixal *verb-x* with straddled *y-verb-z*.

    c.   This is true across different languages and morphosyntactic contexts.

(7)   Why not syntax I: double splits

    a.   I have not adopted a syntactic approach to positioning either the verb between person and number.

    b.   Double splits display a mirror image order. Yimas:

ta-	**pu-*nan-*** *ŋa-* *r-* **ŋkan-um**		*ta-* **Ø-*kra-*** *tpul-c-* **ŋkan-um**
NEG-3-	2PLA-give-PF-PC- PL		NEG-3- 1PLO-hit- PF-PC- PL
'You few didn't give to them' (Foley, 1991, 260)			'They didn't hit us few' (ibid.)

    c.   Syntax: multiple Person and Number projections, with the verb landing in the middle?

      (i)   [PersonO [PersonD [PersonA [... [NumberO [NumberD [NumberA] [verb]]]]]]]

      (ii)   [PersonO [PersonD [PersonA [verb-NumberA-NumberD-NumberO [[[...]]]]]]]]

    d.   But when person and number don't split, why is number suddenly in Person, not vice versa?

    e.   Evidence for verb movement in Yimas?

    f.   Walmatjari: do we say that one phi-set moves into another?

        ma- **n-*tarra-nya*-lu**
        AUX-2-1EX- DU- PL
        'you [verb] us two' (Hudson, 1978, 75)

    g.   Egyptian, Levantine, Jordanian, Moroccan Arabic? Benmamoun et al. (2013) propose that circumfixal negation *ma-...-š* (and dialectal variants) is syntactically a single head. It completely surrounds the verb, like the splits above. If the verb itself involves flanking, then we have double, nested splits again. *ma-...-š* is circumfixal even when it apply to nonverbs:]

        ma-ṭbib-š 'not a doctor' (p99)
        ma-ħda-ha-š 'not near her' (p99)
        maa-ʕomri-š 'never' (p106)

(8)   My account: double splits

    a.   Syntax (in these languages) positions whole phi-set. Splitting / straddling arises during exponence / linearization.

    b.   From [phi$_1$ [phi$_2$ [X]]], you can get all and only the forms attested in Yimas, etc.:

      (i) $\varphi_1 \rightarrow \varphi_2 \rightarrow X$

      (ii) $\varphi_1 \rightarrow \pi_2 \rightarrow X \rightarrow \omega_2$

      (iii) $\pi_1 \rightarrow \varphi_2 \rightarrow X \rightarrow \omega_1$

      (iv) $\pi_1 \rightarrow \pi_2 \rightarrow X \rightarrow \omega_2 \rightarrow \omega_1$

    The syntactic nature of X is immaterial.

(9)   Desideratum 4. Deliver double splits, no syntactic gymnastics.

(10)   Why not syntax II: Classical Hebrew

a.   The language has a verb focus construction that involves a partial copy of the verb (traditionally, the 'infinitive absolute'; ABS). This generally occurs before the finite verb:

> ū-   baḥūr-īm *kāšōl* yi-*kkāšēl*- ū
> and-youth-MPL fall.ABS 3- fall.IMPF-PL
> 'And the young men shall utterly fall.' (Isa. 40:30, וּבַחוּרִים כָּשׁוֹל יִכָּשֵׁלוּ)

b.   If Person is a projection on the extended verbal projection (Shlonsky, 1989), then it sits below the position of the focal copy (infinitive absolute) but below the landing site of the verb:

> $[_C$ fall.ABS $[_\pi$ 3 $[_{T/Asp}$ fall.IMPF-PL $[\ldots]]]]$

c.   In a set of constructions in which T-to-C movement is crosslinguistically plausible (*wh*-questions, injunctives, imperatives, sequential narrative), the order is reversed:

> ū-   mah- y-*ōkīḥ*   *hōkēḥ*   mik- k-em
> and-what-3-reprove.IMPF reprove.ABS from-2-MPL
> 'But what doth your arguing reprove?' (Job 6:25, וּמַה-יּוֹכִיחַ הוֹכֵחַ מִכֶּם)

> way-   y-*bārek*   *bārōk*   ʔet- k-em
> and.ASP-3-bless.IMPF bless.ABS ACC-2-MPL
> 'Therefore he blessed you still.' (Josh. 24:10, וַיְבָרֶךְ בָּרוֹךְ אֶתְכֶם)

d.   If the verb reaches the front of the clause via head movement, then it must pass through the person projection and person should become a suffix, just as it is in the perfective. Josh. 24:10 shows that prefixal person is still possible when the verb is in the higher position.

(11)   Alternative?

a.   Martinović (2019) proposes (primarily to account to Wolof but also to save PersonP qua extended verb projection) that syntax pauses at phase heads, the complement of the phase head is exponed, and the syntax then resumes.

b.   So, the prefixality of person in $[_\pi$ 3 $[_{T/Asp}$ fall.IMPF-PL $]]$ is locked in and preserved by all subsequent verb movement into the syntactic firmament.

c.   This ignores a curious fact about one subspecies of T-to-C triggers. The forms of the verb that narrative conjunction (traditionally, *wāw conversum*) are not identical to those lower in the clause.

d.   Some differences are phonological. Stress shifts, e.g., from *šāmártī* (1SG), *šmárten* (2FPL) to *šāmartī́*, *šmartén*. With this, there can be change of vowel quality, as in *yāqū́m* to *yáqām*, and apocope, as in *yibkéh* to *yḗbk*. So, presumably, only limited exponence takes place at this hypothetical stage?

e.   There is no easy accommodation for the other difference, namely, that the imperfective exponents realise the perfective, and vice versa.

> *hinnēh* **bērak**- tī ʔōt- ō
> behold bless.PF-1SG ACC-3MSG
> 'I blessed him' (Gen. 17:16, הִנֵּה בֵּרַכְתִּי אֹתוֹ)

> w- ʾēl   *šadday* **y-bārek** ʔōt- kā
> and-Almighty God   3-bless.PF ACC-2MSG
> 'And may God Almighty bless thee'
> (Gen. 28:3, וְאֵל שַׁדַּי יְבָרֵךְ אֹתְךָ)

> ū-   **bērak**- tī ʔōt- aḣ
> and.ASP-bless.PF-1SG ACC-3FSG
> 'And I will bless her' (Gen. 17:16, וּבֵרַכְתִּי אֹתָהּ)

> way-   **y-bārek** ʔōt- ō
> and.ASP-3-bless.PF ACC-3MSG
> 'And [he] blessed him' (Gen. 28:1, וַיְבָרֶךְ אֹתוֹ)

f.   This reversal is not a general property of the C domain. In Job 6:25, the imperfective still has typically imperfective form. It is a *wh*-question, not a narrative form.

g. By spelling out the verb and locking prefixality/suffixality of person in before the specific contents C domain is introduced, Martonivoć's account precludes this reversal. A phase-defying degree of look ahead is required to rescue this phase-based account, at least as concerns its application to Classical Hebrew.

(12) Desideratum 5. Prefixality of person should not be contingent on extent of verb movement.

(13) My account
a. Mirror Theory: no head movement. Locus of spell out (i.e., 'the landing site') is simply diacritically marked: Asp for most clauses, C domain for others (narrative conjunction, *wh*-clauses).
b. Different placement of the diacritic has no effect on what is a suffix versus a prefix.
c. What accounts for prefixality/suffixality? Precisely because of the Classical Hebrew aspect reversal, I have wanted to avoid a syntactic approach. In 2016, I mooted two fates can await free-rider phi-features (ones located on heads like Asp, T):
(i) They can be locked into the spell-out position of their host if there is a vocabulary item that mentions them and their head together.
(ii) Otherwise, they are free floating and are treated more like complements for spell out. Possibly by stipulation (or maybe not if I revisit Mirror Theory), this is linearized to the left.
Again, the aim, as with flanking, is to have as much of the work as possible attributed to general properties of the linearization procedure.
d. Evidence that suffixal position is tied to exponence of aspect?
(i) Akkadian perfective is a binyan, therefore orthogonal to agreement. It takes the prefixal conjugation.
(ii) As the suffixal conjugation gained aspectual function, it lost its tight similarity to pronominal suffixes: levelling of 1SG *ku* 2SG *ta/ti/...*, to *kv/ka/ki/...* in some languages, *tv/ta/ti/...* in others. Was this levelling a response to grammatical pressure, to tie these exponents into the verbal projection? (If so, then they need to be regarded as aspect/person portmanteaux.)
(iii) Afar
e. Evidence that the prefixal position is not so tied?
(i) Greater maintenance of similarity (at least of prefixal portion?) to pronouns or other markers of person?

(14) Desideratum 6. Accounts of prefixality/suffixality should allow for the typological variation within Afroasiatic.
a. Verb-final languages: Akkadian, Ethiopic.
b. Differing roles of prefixal conjugations and binyanim:
(i) Perfective is a binyan in Akkadian and takes the prefixal conjugation. The suffixal conjugation is used for statives.
(ii) Tense versus aspect in the prefixal conjugation / languages.

(15) Allomorphy I – apparently long distance
a. In the string *person→...verb...→number*, person and number are at a linear distance where allomorphic conditioning would be surprising. However, prior to spelling out, Number is above Person/*person* and so in a plausible position for syntactic voyeurism.
b. Wongan dialect of Kopar (Foley, in press, 66), PSN-walk-DUR-NRPST-NMB. For some numbers (e.g., dual), number is invariant (*mbaya*); for others (e.g., singular), it shows participant-conditioned allomorphy (1/2 *naya*, 3 *oya*).

	SG	DL
1	*ma-kar-mana-ndək-naya*	*i-kar-mana-ndək-mbaya*
2	*n-kar-mana-ndək-naya*	*n-kar-mana-ndək-mbaya*
3	*kar-mana-nduk-oya*	*mbə-kar-mana-ndək-mbaya*

(16) Allomorphy II – word-finality

    a.   Big issue Yimas but also arises in Classical Hebrew suffixal conjugation before direct object clitics (Kautzsch, 1910, §51.1, pp163, 540f):

qṭal-	*t-* *Ø*		*qṭal-*	*t-* *ī-*	*hū*
kill.PF-2-FSG			kill.PF-2-FSG-3MSGO		

'you killed' (קָטַלְתְּ)   'you killed him' (קְטַלְתִּיהוּ; indistinguishable from 1SGS)

qṭal-	*t-* *em*		*qṭal-*	*t-* *ū-*	*hū*
kill.PF-2-MPL			kill.PF-2-PL-3MSGO		

'you killed' (קְטַלְתֶּם)   'you killed him' (קְטַלְתּוּהוּ)

    b.   Curio. Circumfixal 2FSG *t-...-ī* is like *-t-ī-* used in this context; likewise, 3MPL *t-...-ū* is like *-t-ū-*. The forms that occur after the verb are precisely those that a split across the verb.

    c.   Adger (2006) argued that prosodic information must be made available prior to allomorph choice. But how do you know what the word end is before word building has finished? Mascaró (2007) (also Mascaró 1996) argues that some allomorph choice is suspended until all, or more, information is in.

    d.   Account: follow Mascaró and say, choice on word-final allomorphy waits until the word edge has been established.

(17) Desiderata 7–8: allomorphy

    a.   The syntax ascribed to person and number should permit allomorphy between them even though they end up nonadjacent.

    b.   Decisions on whether to use a word-final allomorph must be delayed until word boundaries have been established.

(18) Conclusion (or: desiderata redux)

    a.   Given that similar ordering and straddling holds in other families and in other regions, we do not want an account that locates precedence, prefixality, and suffixality wholly in the affixes.

    b.   Straddling arises in response to linearization challenges when phi is *prefixed* to the verb. So, when a straddling conjugation retreats to just one position, it retracts to the prefixal position.

    c.   More generally, languages may have conjugations comprising both prefixal *x-verb* with straddled *y-verb-z*, but not ones comprising suffixal *verb-x* with straddled *y-verb-z*. This is true across different languages and morphosyntactic contexts.

    d.   Deliver double splits, no syntactic gymnastics.

    e.   Prefixality of person should not be contingent on extent of verb movement.

    f.   Accounts of prefixality/suffixality should allow for the typological variation within Afroasiatic.

        (i)   Verb-final languages: Akkadian, Ethiopic.

        (ii)   Differing roles of prefixal conjugations and binyanim: · Perfective is a binyan in Akkadian and takes the prefixal conjugation. The suffixal conjugation is used for statives. · Tense versus aspect in the prefixal conjugation / languages.

    g.   The syntax ascribed to person and number should permit allomorphy between them even though they end up nonadjacent.

    h.   Decisions on whether to use a word-final allomorph must be delayed until word boundaries have been

established.

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